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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Karsten Haug

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KENYON & KENYON LLP  
ONE BROADWAY  
NEW YORK, NY 10004

EXAMINER

BAKER, DAVID S

ART UNIT

PAPER NUMBER

2884

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DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/583,201	HAUG, KARSTEN	
	<b>Examiner</b>	<b>Art Unit</b>	
	DAVID S. BAKER	2884	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 23 February 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 15-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 15-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)   |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application                                     |
| Paper No(s)/Mail Date _____  | 6) <input checked="" type="checkbox"/> Other: <u>DE 4107850 A1: Machine Translation into English.</u> |



**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed 23 February 2009 has been accepted and entered.
2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 17-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. The term "close" in claim 17 is a relative term which renders the claim indefinite. The term "close" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention. The deletion of the indefinite term, or its replacement with a definite term or descriptive range would overcome this rejection. Claims 18-25 are rejected as being indefinite due to their dependence upon claim 17. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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7. Claims 15-20 and 26-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Weidel (DE 4107850 A1).

Regarding claim 15, Weidel discloses a driver assistance night-vision system for a motor vehicle comprising: a camera having an image sensor and a filter element (Section 1); wherein the image sensor is configured for recording electromagnetic radiation from the visible range (Television Camera, Section 2) and the infrared range of the spectrum (800-2000nm, Section 1); and wherein the filter element is positioned in an optical path of the night-vision system in such a way that the filter element causes an attenuation of recorded electromagnetic radiation from predefined partial areas of an image scene (Section 1); and wherein the predefined partial areas of the image scene are imaged onto corresponding predefined partial areas of the image sensor (Section 1); and wherein the filter element has an inverse wavelength characteristic as a wavelength characteristic of a headlight of the motor vehicle (Section 2).

Regarding claim 16, Weidel discloses that the camera is sensitive in a wavelength range of 400 to 1100 nm (800-2000nm, Section 1; television camera, Section 2).

Regarding claim 17, Weidel discloses that the attenuation of the recorded electromagnetic radiation includes attenuation of electromagnetic radiation corresponding to a portion of the image scene in a close range from the driver's perspective (Section 2).

Regarding claim 18, The night-vision system as recited in Claim 17, wherein the filter element has a wavelength dependent filter characteristic (Section 2), and wherein a transmittance function of the wavelength dependent filter characteristic is adapted based on selected application criteria for the night-vision system (Section 2).

Regarding claim 19, Weidel discloses that the night-vision system as recited in Claim 17, wherein the filter element has a locus dependent filter characteristic (Section 2), and wherein a transmittance function of the wavelength dependent filter characteristic is adapted based on selected application criteria for the night-vision system (Section 2).

Regarding claim 20, Weidel discloses that the night-vision system as recited in Claim 19, wherein the locus dependent filter characteristic is set in accordance with an inverse, locus dependent sensitivity of an overall optical system of the night-vision system, so as to compensate for lack of homogeneity of radiation intensity from a far range (Section 2).

Regarding claim 26, Weidel discloses a camera for a night-vision system for a motor vehicle comprising: a radiation sensitive image sensor surface configured for recording electromagnetic radiation in the infrared range (Section 1); a filter element positioned in an optical path of the night-vision system so as cause an attenuation of electromagnetic radiation recorded at predefined partial regions of the image sensor surface (Section 1), wherein the filter element has an inverse wavelength characteristic as a wavelength characteristic of a headlight of the motor vehicle (Section 2).

Regarding claim 27, Weidel discloses a filter element for a night-vision system for motor vehicles, the night-vision system including a camera having a radiation-sensitive image sensor surface configured for recording electromagnetic radiation in the infrared range (Section 1), the filter element comprising: a filter configured to be positioned in an optical path of the night-vision system so as to cause an attenuation of electromagnetic radiation recorded at predefined partial regions of the image sensor

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surface (Section 1), wherein the filter element has an inverse wavelength characteristic as a wavelength characteristic of a headlight of the motor vehicle (Section 2).

***Claim Rejections - 35 USC § 103***

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claim 21 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weidel (DE 4107850 A1) in view of Holz (US 6,552,342 B2).

Regarding claim 21, Weidel does not explicitly disclose that the filter element is affixed in an exchangeable manner. Holz discloses a night-vision system for vehicles comprising: a filter wheel for exchanging filter elements (C:4 L:58-65). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to apply the teachings of Holz to the system of Weidel such that the filter is exchangeable. The motivation for doing so would have been to increase the versatility of the imaging system by allowing the filter to be removed when it is deemed unnecessary or counterproductive (i.e. in extremely low light situations when no other vehicles are present).

Regarding claim 25, Weidel does not explicitly disclose a control unit operatively coupled to the camera and a high beam headlight and a low beam headlight of the motor vehicle, wherein the high beam headlight projects a light having a spectral range that substantially does not overlap with a spectral range of a light projected by the low beam headlight. Holz discloses a night-vision system for vehicles comprising: separately operable high, medium, and low headlights that project light having spectral ranges that

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do not overlap (C:4 L:58-65). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to utilize different headlights having separate spectral ranges as taught by Holz in the system of Weidel. The motivation for doing so would have been to improve the versatility of the system since providing several headlight ranges would allow for specialized use (i.e. one wavelength in high traffic areas, another in extremely low light conditions, and another for a combination of both situations). Holz does not explicitly disclose a control unit that operates the headlights. Additionally, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to provide a control unit to operate the headlights. The motivation for doing so would have been that it is well known in the art to providing high beam / low beam control units for vehicle headlights; the motivation for such devices is to decrease the difficulty of operating the headlights and to remove distractions from the driver.

10. Claims 22 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weidel (DE 4107850 A1) in view of Albou (FR 2732849 A1).

Regarding claim 22, Weidel does not explicitly disclose that the filter element is positioned directly in front of the image sensor. Albou discloses an automobile vision assistance system wherein a filter is mounted directly in front of the image sensor (P:4 L:32-34). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to place the filter directly in front of the image sensor of Weidel. The motivation for doing so would have been to reduce the complexity of the optical path thereby reducing the cost of the optical system.



Regarding claim 24, Weidel does not explicitly disclose that the filter element is configured as an integrated part of a protective glass for the image sensor. Albou discloses an automobile vision assistance system wherein a filter element is configured as an integrated part of a protective glass for the image sensor (P:4 L:32-34). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to integrate the filter as part of a protective glass for the image sensor of Weidel. The motivation for doing so would have been to decrease the number of stand alone components of the optical system thereby reducing the cost of the optical system.

11. Claims 23 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weidel (DE 4107850 A1) in view of Slawek (US 3,704,375 A).

Regarding claim 23, Weidel does not explicitly disclose that the filter element is configured as a coating provided on the image sensor. Slawek discloses a filter coating on an image sensor (C:4 L:51-64). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a filter coating as taught by Slawek as the filter of Weidel. The motivation for doing so would have been to decrease the complexity of the device by eliminating a stand alone filter thereby reducing replacement and repair costs.

Regarding claim 28, Weidel discloses an image sensor for a camera in a night-vision system for a motor vehicle comprising: an image sensor surface configured to record electromagnetic radiation from the infrared range (800-2000nm, Section 1); wherein the image sensor surface includes a filter that causes an attenuation of electromagnetic radiation recorded on predefined partial areas of the image sensor

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surface (Section 1); wherein the filter has an inverse wavelength characteristic as a wavelength characteristic of a headlight of the motor vehicle (Section 2). Weidel does not explicitly disclose that the filter is a coating. Slawek discloses a filter coating on an image sensor (C:4 L:51-64). At the time the invention was made, it would have been obvious to a person of ordinary skill in the art to use a filter coating as taught by Slawek as the filter of Weidel. The motivation for doing so would have been to decrease the complexity of the device by eliminating a stand alone filter thereby reducing replacement and repair costs.

### ***Response to Arguments***

12. Applicant's arguments, see pages 6-7 of the amendment, filed 23 February 2009, with respect to the rejection(s) of claim(s) 15-28 under 35 U.S.C. 103(a) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Weidel (DE 4107850 A1) upon further consideration of the reference.

### ***Conclusion***

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US 2005/0023465 A1 – Eggers discloses a device for improving visibility in motor vehicles.

US 7,132,654 B2 – Moisel discloses a device for improving visibility in motor vehicles.

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID S. BAKER whose telephone number is (571)272-6003.

The examiner can normally be reached on MTWRF 10:30am-7:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David P. Porta/  
Supervisory Patent Examiner, Art Unit  
2884

/David S Baker/  
Examiner, Art Unit 2884